

## Abstract of the Disclosure

A machine adapted for testing wear, wear-preventative and friction characteristics between a rotating specimen axially loaded against one or more non-rotated test specimens includes a load mechanism in the form of a low-friction, pneumatic diaphragm actuator, a load sensor in the load path to provide visual confirmation and feedback for automated load control, a linear motion sensor aligned with the load path for detection of specimen wear during the test, and a torque sensor for detection of the friction generated between the test specimens.